

RE: Cumulative Exposure Calculations

Brattin, Bill to: Christensen.Krista

01/07/2013 05:13 PM

From: "Brattin, Bill" <brattin@srcinc.com>

To:

Cc: Benson.Bob@epamail.epa.gov

Krista

I talked to Bob about this and we think the best thing is for you and me to work it through to uncover the discrepancy in our calcs. Since I have a hard time reading SAS code, let's just pick one example worker where you have detected a discrepancy, and look at the raw data (exp0osure conc by season) and then see if we agree on what values should get added to produce the unlagged and the lagged CE values. Then, we can both check our calcs to be sure they are doing what we want.

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From: Christensen.Krista@epamail.epa.gov

[mailto:Christensen.Krista@epamail.epa.gov]

Sent: Monday, January 07, 2013 8:35 AM

To: Benson.Bob@epamail.epa.gov; Brattin, Bill;

Berry.David@epamail.epa.gov

Cc: Bateson.Thomas@epamail.epa.gov; Kopylev.Leonid@epamail.epa.gov

Subject: Fw: Cumulative Exposure Calculations

Hi Bob-

I was looking over the new exposure estimates you sent a couple weeks ago, and thought I'd try to recreate the cum and lagged cum exposure values from the season-level data, to ensure I understood how they were calculated. The unlagged cum exp estimates from my calculations identical to those in the excel file you sent for subjects with xray in 2000's, but slightly different for those with xray in 1980 (which leads me to think it's not a rounding issue). The lagged cum exp estimates are slightly different across the board.

Were the estimates in the excel file generated using day-level data (or other), or based solely on the season/year-level data? I think

the difference is likely due to how the lags are taken, but not quit sure where the discrepancy would lie. I've attached my SAS program in case that is helpful.

Thanks!
Krista

From: Bob Benson/R8/USEPA/US
To: Thomas Bateson/DC/USEPA/US@EPA, Krista Christensen/DC/USEPA/US@EPA, Leonid Kopylev/DC/USEPA/US@EPA
Cc: brattin@srcinc.com<mailto:brattin@srcinc.com>, David Berry/R8/USEPA/US@EPA
Date: 12/26/2012 12:40 PM
Subject: Cumulative Exposure Calculations

Attached are spreadsheet that have the data for cumulative exposure based on GM and AM approaches. The calculations are all based on the 899 IH data (duplicates for 1977 for Track Unload were removed, but the GM JEM prepared originally by UC did not change) and the corrected seasonal adjustment factors.

Here is the original spread sheet from UC with the data by season and year for the 513 workers. One tab is based on GM, the other tab is based on AM.

[attachment "Worker exposure by season 12-20-2012.xlsx" deleted by Krista Christensen/DC/USEPA/US]

Bill prepared the two spreadsheet below. The data were narrowed to 434 workers based on the selection criteria described in the tab. The files show cumulative exposure for each of the 434 workers with lags of 0, 5, 10, 15, and 20 years. One file is based on GM, the other is based on AM.

[attachment "GM Data for Fitting NCEA Copy.xlsx" deleted by Krista Christensen/DC/USEPA/US] [attachment "AM Data for Fitting NCEA Copy.xlsx" deleted by Krista Christensen/DC/USEPA/US]

I am in the office today. I will be out Dec 27, Dec 28 and will return Jan 2. Call me (303-312-7070) or Bill (home, 303-697-6593) if you have questions about the data sets.



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